operations wholly within the state of Alaska) in the North Polar area; and

(10) Other instructions necessary to ensure the pilot's competence.

(b) For each aircraft type—

(1) A general description;

(2) Performance characteristics;

(3) Engines and propellers;

(4) Major components;

(5) Major aircraft systems (i.e., flight controls, electrical, and hydraulic), other systems, as appropriate, principles of normal, abnormal, and emergency operations, appropriate procedures and limitations;

(6) Knowledge and procedures for—

(i) Recognizing and avoiding severe weather situations;

(ii) Escaping from severe weather situations, in case of inadvertent encounters, including low-altitude windshear (except that rotorcraft pilots are not required to be trained in escaping from low-altitude windshear);

(iii) Operating in or near thunderstorms (including best penetrating altitudes), turbulent air (including clear air turbulence), icing, hail, and other potentially hazardous meteorological conditions; and

(iv) Operating airplanes during ground icing conditions, (i.e., any time conditions are such that frost, ice, or snow may reasonably be expected to adhere to the airplane), if the certificate holder expects to authorize takeoffs in ground icing conditions, including:

(A) The use of holdover times when using deicing/anti-icing fluids;

(B) Airplane deicing/anti-icing procedures, including inspection and check procedures and responsibilities;

(C) Communications;

(D) Airplane surface contamination (i.e., adherence of frost, ice, or snow) and critical area identification, and knowledge of how contamination adversely affects airplane performance and flight characteristics;

(E) Types and characteristics of deicing/anti-icing fluids, if used by the certificate holder;

(F) Cold weather preflight inspection procedures;

(G) Techniques for recognizing contamination on the airplane;

(7) Operating limitations;

(8) Fuel consumption and cruise control;

(9) Flight planning;

(10) Each normal and emergency procedure; and

(11) The approved Aircraft Flight Manual, or equivalent.

[Doc. No. 16097, 43 FR 46783, Oct. 10, 1978, as amended by Amdt. 135–27, 53 FR 37697, Sept. 27, 1988; Amdt. 135–46, 58 FR 69630, Dec. 30, 1993; Amdt. 135–108, 72 FR 1885, Jan. 16, 2007; Amdt. 135–110, 72 FR 31685, June 7, 2007; Amdt. 135–112, 73 FR 8798, Feb. 15, 2008]

§ 135.347 Pilots: Initial, transition, upgrade, and differences flight training.

(a) Initial, transition, upgrade, and differences training for pilots must include flight and practice in each of the maneuvers and procedures in the approved training program curriculum.

(b) The maneuvers and procedures required by paragraph (a) of this section must be performed in flight, except to the extent that certain maneuvers and procedures may be performed in an aircraft simulator, or an appropriate training device, as allowed by this subpart.

(c) If the certificate holder's approved training program includes a course of training using an aircraft simulator or other training device, each pilot must successfully complete—

(1) Training and practice in the simulator or training device in at least the maneuvers and procedures in this subpart that are capable of being performed in the aircraft simulator or training device; and

(2) A flight check in the aircraft or a check in the simulator or training device to the level of proficiency of a pilot in command or second in command, as applicable, in at least the maneuvers and procedures that are capable of being performed in an aircraft simulator or training device.

§ 135.349 Flight attendants: Initial and transition ground training.

Initial and transition ground training for flight attendants must include instruction in at least the following—

(a) General subjects—

(1) The authority of the pilot in command; and